

Need(s) or Areas to Watch

- New Evaluator for AREN Project – Contract contingent on Government Reopening
- AREN Assets

Cross - Collaboration

- Planning with Mission Earth for GLOBE Annual Conference, Midwest Student Research Symposium and Engineering Projects

Nugget Submitted January 4, 2019
 David Bydlowski, Alissa Quinton, Judy Wink
 PI and CO-PI's – AREN Project

SCIENCE MISSION DIRECTORATE

The AREN Project in Costa Rica

Up, Up and Away Project - Grades 1-3
 AEROKATS at Colina Azul - Grades 4-6
 Location: Escuela Colina Azul in Atenas, Costa Rica 9.9785N, 84.3738W

Alissa Quinton and Judy Wink represented the AREN team and Liz Lavezzorio, represented the school. The team worked with students in grades 1-6 over a three-day period. The students in grades 1-3 are learning English and a translator (teacher) assisted with the language barrier. Students in grades 4-6 are more fluent in English, and a translator was used only when technical points were being presented.

The objective with students in grades 1-3 (60 students) was to teach and implement the GLOBE cloud protocol. We also wanted to familiarize them with the skills needed for kite flying.

The 60 students in grades 4-6 were much more advanced in their understanding of science background. They were very receptive in learning about flying the kites with payloads in order to collect data. We explained all of the equipment including the weather devices, emphasized safety in kite flying, the collection of data, downloading the data and reporting the data to the GLOBE website.

General Comments:

- The school administrators, teachers of each class and designated science teacher are all on board with the AREN program.
- Some additional equipment will be needed.
- More instruction is needed for the students to download data to GLOBE.



Updates/Changes

- Website Updates
- Additions to “AREN User Community”
- Field Testing of Kites
- Monthly – Earthlings, NASA Headquarters, SciAct Working Group and AREN Team Monthly Online/Phone Conferences
- AREN Online Modules Developed by Montana State University --Creating short, non-credit learning modules that can be successfully delivered online to a broad audience, to increase the reach and long-term sustainability of the AREN project.
- AREN Weather Stations Online for Monitoring Kite Flying Conditions
- Six AREN Associated Presentations at AGU in December
- Presentations – “Rouge Education Project New Teacher Orientation” and “Ward Museum ROVER Training and NPS Assateague Island Research and Training Flights”
- AREN Nugget Submitted from the Chesapeake Bay Environmental Center
- Wind Speed Challenge Approved by GLOBE
- AEROKATS Web Development
- Particle Sensor Investigation
- UMES Wind Tunnel Projects on YouTube

Look Ahead

- 2019 GLOBE Annual Meeting in Detroit, MI
- GLOBE AREN Wind Speed Challenge
- 2019 MAEOE Meeting February 7-10